

Information Disclosure Citation  
Statement of Relevance

J1000 U.S. PTO  
10/051732  
01/22/02

The present invention combines the luminenscent and quenching properties of phosphors with first-order relaxation subsystems to perform certain mathematical operations. The optical system described will enable collective dynamic behaviors such that the relative strengths of the output light intensities (as compared to those of the input light intensities) correspond to the results that would be achieved by performing certain mathematical computations with numbers in the same relative proportions to each other (as the input and output light intensities). By measuring the light intensities, the equivalent computational answers can be obtained from the system. The potential equivalent computations include all mathematical operations describable by the physics that apply to the specific optical system of interacting light intensities and phosphor materials.

U.S. Patent No. 5,598,053 issued on January 28, 1997, discusses the quenching property of phosphors and teaches how that property can be used in substitution for structure such as a shadow mask.

U. S. Patent No. 5,784,309 issued on July 21, 1998, discloses an optical vector multiplier and is cited as one example of prior art in this field. The claims of this patent explicitly incorporate electronic circuitry. While the specification does discuss the use of "light source fields" in lieu of "electro-optic modulators,"

The patent does not appear to address an entirely non-electrical system.

Neither the applicant nor his undersigned representative is aware of additional prior art which teaches or discloses the applicant's invention or which would render the invention obvious or unpatentable. Neither the applicant nor his undersigned representative is aware of any other information which, in their opinion, is material to patentability and which is not cumulative to information already of record in the application, or which further establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim.

Respectfully,

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	
				Filing Date	
				First Named Inventor	John L. Johnson
				Group Art Unit	
				Examiner Name	
Sheet	1	of	1	Attorney Docket Number	AMPC 4986

U.S. PATENT DOCUMENTS							
Examiner Initials *		U.S. Patent Document	DATE	Name of Patentee or Applicant of Cited Document	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		Number	(MM-DD-YYYY)				
	A	5,598,053	01-28-1997	Johnson, et al.	313	364	
	B	5,784,309	07-21-1998	Budil, Matthias	708	835	

FOREIGN PATENT DOCUMENTS								
Examiner Initials *		Foreign Patent Document	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
		Number	(MM-DD-YYYY)				YES	NO

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue numbers, publisher, city and/or country where published.	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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